Coconino National Forest Plan Revision

Desert Communities (also known as Desert Scrub)

General description

- Desert scrub vegetation is located on the Red Rocks Ranger District and generally occurs at elevations ranging from approximately *[range to be determined]* feet. They cover about *[percentage to be determined]* of the Coconino NF, contain numerous roads and private land parcels, and adjoin the communities of Camp Verde, Cornville, and Page Springs.

- Desert scrub is comprised of three vegetation sub-types that vary in composition and structure: creosote (*Larrea tridentata*) dominated sites, crucifixion thorn (*Canotia holacantha*) dominated sites, and mesquite bosques (*Prosopis spp*.) Mesquite bosques or woodlands are next to riparian corridors. The mesquite grows more tree-like because it has greater access to water than mesquite in the adjoining dry slopes. The soils in the bosques are sandy, subject to wind erosion and vulnerable to occasional flooding.

- Some soils in this community contain significant quantities of calcium carbonate and a pH of 8 or more is common. There is severe erosion hazard on slopes greater than 35 percent. The hot arid climate and calcareous soils significantly limit potential for re-vegetation. This is not a fire-adapted community. It supports a unique community of endemic plants adapted to these calcium-rich soils. It also contains the Verde Valley Botanical Area.

Desired Conditions (landscape scale 10,000+ acres)

- Predominant plant species are native shrubs, forbs and grasses in various age classes. There is sparse vegetation cover over most of the area that includes native perennials and varying amounts of annual species. Cover of annual forbs and grasses can be high after exceptionally wet winter or summer seasons, but is short lived. There is successful regeneration and establishment of native endemic species.

- Invasive plants do not occur at levels that disrupt ecological functioning.

- There are [*number to be determined*] plants known to be used by tribes that traditionally use the forest. These plants thrive here.

- Populations of Arizona cliffrose (a federally endangered species) are connected and preserved. Population numbers for Arizona cliffrose remain static or increase. Habitat for Arizona cliffrose and its associated species remains suitable and none is impacted by management activities.

Table 1 shows differences in perennial plant basal cover, litter and ground cover between the three subtypes.

Table 1: Comparison of vegetation characteristics between desert scrub subtypes

Sub-type	Canopy cover	Predominant species	Ground cover	Perennial plant basal area	Litter
Creosote	*[canopy cover to be determined]*	forbs, grass, shrubs	gravel, cobble	< 5%	10-15%
Crucifixion thorn	< 15% of shrubs and trees	forbs, grass, shrubs	gravel, cobble, rock outcrops	<10%	5-20 %
Mesquite bosques	20 %	shrubs or small trees and grasses	sandy soil	10-15%	15 %

- In all subtypes, erosion occurs at natural rates. There is little sign of compaction or accelerated erosion. Biological soil crusts are maintained and expanding. These are crusts of soil particles formed by algae, mosses, and lichens in arid areas and are important because they hold the soil in place, help retain moisture, and improve soil nutrients by fixing atmospheric nitrogen.

- Fires are rare with mean fire return intervals estimated between 75-200+[1] years.

Objectives – *[none currently identified]*

Guidelines

- Excessive[2] ground disturbance should be avoided to limit erosion and to reduce the possibility of bringing more calcareous soil to the surface.

Management Approaches

- Consider land acquisition or trade to acquire habitat for Arizona cliffrose and endemic species populations.
- *[Will include a statement about habitat linkages, and reference Arizona's Wildlife Linkage Assessment.]*

[1] From LANDFIRE mapping data *[Will need to make consistent between vegetation types]*
[2] *[The term 'excessive' is verbatim out of the Terrestrial Ecosystem Survey. This will need to be defined.]*